

UNEMPLOYED PERSONS : INCOME DISTRIBUTION, AUSTRALIA, 1978-79 (PRELIMINARY)

NEW ISSUE

INQUIRIES

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MAIN FEATURES

Note. The estimates are subject to sampling variability, as explained in paragraph 14. Standard errors are shown on page 3.

An estimated 570,800 males and 452,000 females were unemployed for at least one week during 1978-79.

Their mean annual incomes in 1978-79 were \$5,720 and \$3,240 respectively.

41 per cent of the males and 64 per cent of the females did not receive any unemployment benefit.

For persons in the labour force for 40 weeks or more, mean incomes ranged from \$2,520 for those unemployed for the whole year to \$8,990 for those unemployed for only one week.

EXPLANATORY NOTES

Introduction

This publication contains preliminary estimates of the income in 1978-79 of persons who were unemployed at some time during that year. The estimates were derived from a survey of annual income which was conducted throughout Australia in the period September to December 1979. Further details of income distribution for individuals, income units and families will be issued progressively.

2. The survey was based on a multi-stage area sample of private dwellings (about 15,000 houses, flats etc) and non-private dwellings (hotels, motels etc) and covered about one-third of one per cent of the population of Australia.

Scope

3. The estimates relate to all persons aged fifteen years and over except: members of the Australian defence forces living in military establishments; certain diplomatic personnel of overseas governments customarily excluded from census and estimated populations; overseas visitors holidaying in Australia; members of non-Australian defence forces (and their dependants) stationed in Australia; students in boarding schools, patients in hospitals and sanatoria and inmates of gaols, reformatories, etc.

Interpretation of results

4. Since the estimates are based on a sample, they are subject to sampling variability. (See paragraphs 14 to 17 below.) In addition, they are subject to errors of response and reporting. Although respondents were asked during the interview to refer to their records wherever possible, in many cases the answers to the questions on income were based on memory. Some understatement in the estimates may be expected because of imperfect recall, particularly of minor or irregular sources of income.

5. Persons who had lived outside of Australia for more than twelve weeks during 1978-79, and had worked overseas in a job or jobs unrelated to an Australian job or business, were excluded from all tables. Hence all migrants who arrived in Australia after September 1978 were excluded.

6. Other points which should be kept in mind in interpreting the results of this survey are as follows:

- (a) For the purposes of the survey, income was defined to include
 - (i) all income received while living in Australia, including income received from an overseas source and
 - (ii) all income received from an Australian source while living overseas.
- (b) The income received by a person does not necessarily reflect the standard of living of that person. For example, although alimony and maintenance payments were counted as income, gifts or donations such as might be made by relatives were not included, even though such gifts or donations may have been the sole means of support.
- (c) Persons who received no income in 1978-79 are included in the calculation of median and mean incomes.
- (d) Personal characteristics such as age and marital status may have changed between the reference year and the time of the interview.

Definitions

7. *Income.* Questions were asked in respect of each person aged fifteen years or over, except those attending school full time, on the amount of income received in 1978-79 from each of the following sources: wages or salary; own business, trade or profession (net income); share in a partnership (net income); government social security and welfare cash benefits; superannuation or annuity; interest, dividends, rent, etc; other sources, eg trust or will, maintenance or alimony.

8. *Income from government social security and welfare cash benefits* includes income received through programmes of assistance to aged persons, incapacitated and handicapped persons, unemployed and sick persons, veterans and their dependants, widowed and deserted spouses, families and children; cash benefits for education; and other social security and welfare programmes.

9. *Median income* is the amount which divides the distribution into two equal groups, one having incomes above the median and the other having incomes below it. Medians were calculated from grouped data with linear interpolation being used within the class interval in which the median fell.

10. *Mean income* is the amount obtained by dividing the total income of a group in 1978-79 (eg recipients of unemployment benefit) by the number of persons in that group.

11. *Unemployed persons* are those who during any week were not employed (ie did not work for pay, profit, commission or payment in kind, and did not have a job, business or farm) and were looking for work.

12. *Duration of unemployment* is the total number of complete weeks in 1978-79 during which a person was unemployed (as above).

13. A person was classified as having been *in the labour force* during any week in which he was employed or unemployed (as above).

Reliability of the estimates

14. Since the estimates are based on information obtained from occupants of a sample of dwellings they are subject to sampling variability; that is, they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure is the *relative standard error*, which expresses the standard error as a percentage of the estimate.

15. Space does not allow for a separate indication of the standard error of all estimates in this publication. The table below shows standard errors of estimates of numbers of persons for a range of estimate sizes, together with relative standard errors of estimates of mean and median incomes. These figures will not give a precise measure of the standard error of a particular estimate, but they will provide an indication of its magnitude.

16. Examples of the calculation and use of standard errors are given below:

(a) From the table it will be seen that the estimate of 100,900 persons whose total income was between \$3,000 and \$4,000 (Table 1) has a standard error of about 5,500. Therefore there are about two chances in three that the number of persons with total income in that range would be between 95,400 and 105,400 and about nineteen chances in twenty that it would be between 89,900 and 111,900 if all dwellings had been included in the survey.

(b) Table 1 shows that the estimate number of unemployed married females was 13,100 and their estimated mean income was \$2,970. From the table below it will be seen that the relative standard error of the mean income of 193,100 persons is about 3.5 per cent. As 3.5 per cent of \$2,970 is about \$104, there are about two chances in three that the mean income would be between \$2,866 and \$3,074 and about nineteen chances in twenty that it would be between \$2,762 and \$3,178.

17. As the standard errors in the table show, the smaller the estimate the higher is the relative standard error. Very small estimates are thus subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In this publication estimates below 1,000, and means and medians based on such estimates, have not been included. Although figures for the number of unemployed persons can in some cases be derived by subtraction they should not be regarded as reliable.

18. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may be occurred because of imperfections in reporting by interviewers and respondents. Inaccuracies of this kind are referred to as the *non-sampling error*, and they may occur in any enumeration, whether it be a full count or only a sample. See paragraphs 4 to 6.

Size of estimate (persons)	Standard errors of estimates		Relative standard error of median or mean income (per cent)
	Standard error (number)	Relative Standard error (per cent)	
6,000	1,560	26.0	20.1
10,000	1,980	19.8	15.6
20,000	2,830	14.2	11.0
50,000	4,100	8.2	7.0
100,000	5,500	5.5	4.9
200,000	7,200	3.6	3.5
300,000	8,500	2.8	2.8
500,000	10,200	2.0	2.2
1,000,000	12,900	1.3	1.6

Related publications

19. Current publications produced by the ABS are listed in *Catalogue of Publications* (1101.0), which is available free of charge from any ABS office.

Symbols and other usages

* Subject to sampling variability too high for most practical uses. See paragraph 17.

20. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

R. J. CAMERON
Australian Statistician

**TABLE 1. PERSONS UNEMPLOYED AT SOME TIME DURING 1978-79:
MARITAL STATUS(a) AND TOTAL INCOME, 1978-79**

	Married			Not married (b)			Total		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
- '000 -									
Total income (\$) -									
Nil	*	8.0	11.9	8.1	7.4	15.5	12.1	15.4	27.5
1 and under 500	*	50.8	53.3	9.1	16.3	25.5	11.6	67.1	78.7
500 " " 1,000	*	22.6	23.8	16.6	19.5	36.1	17.7	42.1	59.9
1,000 " " 2,000	*	20.2	25.4	43.6	40.3	83.8	48.8	60.5	109.3
2,000 " " 3,000	14.6	17.8	32.4	70.3	55.7	126.0	84.8	73.6	158.4
3,000 " " 4,000	10.0	11.9	21.9	44.0	35.0	79.0	54.1	46.9	100.9
4,000 " " 5,000	19.2	13.0	32.2	29.4	25.4	54.8	48.6	38.5	87.0
5,000 " " 6,000	30.6	10.6	41.2	27.3	20.4	47.7	57.9	31.0	88.9
6,000 " " 7,000	25.4	11.9	37.2	24.0	13.2	37.2	49.4	25.1	74.5
7,000 " " 8,000	23.4	10.2	33.6	22.3	10.0	32.3	45.7	20.2	66.0
8,000 " " 12,000	63.4	13.4	76.8	42.0	12.1	54.2	105.4	25.5	130.9
12,000 and over	23.8	*	26.6	10.9	*	14.3	34.7	6.2	40.9
Total	223.2	193.1	416.4	347.6	258.9	606.5	570.8	452.0	1,022.9
- dollars -									
Median income	6,960	1,750	5,180	3,590	2,820	3,210	5,130	2,560	3,770
Mean income	7,380	2,970	5,330	4,650	3,430	4,130	5,720	3,240	4,620

(a) At the time of the interview. (b) Never married, widowed, divorced and separated.

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TABLE 2. PERSONS UNEMPLOYED AT SOME TIME DURING 1978-79 :
DURATION OF UNEMPLOYMENT AND MEAN INCOME, 1978-79

Duration of unemployment (weeks) -	Number ('000)			Mean income (\$)		
	Males	Females	Persons	Males	Females	Persons
IN THE LABOUR FORCE FOR LESS THAN 40 WEEKS						
1	6.9	8.4	15.3	2,970	1,440	2,130
2- 4	29.0	39.1	68.0	3,240	2,160	2,620
5- 8	22.8	32.9	55.7	3,590	2,360	2,860
9-13	20.9	28.7	49.6	3,080	1,980	2,440
14-26	27.5	41.3	68.8	2,080	1,260	1,590
27-39	10.2	16.0	26.2	1,780	1,100	1,360
Total	117.3	166.3	283.7	2,870	1,810	2,240
IN THE LABOUR FORCE FOR 40-52 WEEKS						
1	14.6	7.9	22.5	10,420	6,330	8,990
2- 4	78.5	39.0	117.5	8,470	6,530	7,820
5- 8	53.8	35.7	89.5	8,130	6,350	7,420
9-13	62.0	28.3	90.3	7,430	5,460	6,810
14-26	90.2	49.2	139.4	6,280	4,410	5,620
27-39	46.8	29.9	76.7	5,810	3,130	4,770
40-51	33.9	29.9	63.8	3,910	1,850	2,950
52	73.8	65.8	139.6	3,280	1,680	2,520
Total	453.5	285.7	739.2	6,460	4,070	5,530

TABLE 3. PERSONS UNEMPLOYED AT SOME TIME DURING 1978-79 :
AMOUNT OF UNEMPLOYMENT BENEFIT AND MEAN INCOME, 1978-79

Unemployment benefit (\$) -	Number ('000)			Mean income (\$)		
	Males	Females	Persons	Males	Females	Persons
Nil	231.9	288.2	520.0	6,240	3,160	4,530
1 and under 500	102.4	65.6	168.0	6,320	3,830	5,350
500 " " 1,000	71.4	39.1	110.5	5,730	3,190	4,830
1,000 " " 1,500	46.5	22.7	69.2	4,980	2,930	4,300
1,500 " " 2,000	23.9	12.2	36.1	4,200	3,270	3,890
2,000 " " 3,000	57.8	24.0	81.8	3,530	2,830	3,320
3,000 " " 4,000	10.3	*	10.4	6,290	*	6,230
4,000 and over	26.8	*	26.8	6,030	*	6,030
Total	570.8	452.0	1,022.9	5,720	3,240	4,620

TABLE 4. PERSONS UNEMPLOYED AT SOME TIME DURING 1978-79 :
AMOUNT OF GOVERNMENT SOCIAL SECURITY AND WELFARE CASH BENEFITS AND MEAN INCOME, 1978-79

Government social security and welfare cash benefits (\$) -	Number ('000)			Mean income (\$)		
	Males	Females	Persons	Males	Females	Persons
Nil	198.0	117.8	315.8	6,450	3,770	5,450
1 and under 1,000	184.2	226.1	410.3	6,040	2,840	4,280
1,000 " " 1,500	48.9	34.6	83.5	5,100	3,110	4,280
1,500 " " 2,000	25.7	17.1	42.8	4,120	3,250	3,770
2,000 " " 2,500	28.8	13.7	42.5	4,010	3,680	3,900
2,500 " " 3,000	41.8	25.2	67.0	3,300	3,160	3,250
3,000 " " 3,500	6.8	*	10.1	6,050	*	5,220
3,500 " " 4,000	*	*	10.2	*	*	4,890
4,000 " " 5,000	13.1	7.0	20.1	6,070	4,960	5,680
5,000 and over	17.8	*	20.5	6,330	*	6,390
Total	570.8	452.0	1,022.9	5,720	3,240	4,620